

REMARKS

The Examiner has rejected all of the claims based upon the Toda reference alone or in combination with other references. The Toda reference teaches a touch screen which is vastly different from the claimed invention.

The Examiner incorrectly reads the Toda reference and incorrectly equates the shockwave created by the tactile interaction of the pending claims with the transducer generated SAW of the Toda reference.

Toda teaches the generation of a plurality of surface acoustic waves on the edge of a face of a display device and then measures when one of the plurality of surface acoustic waves is blocked by a finger or stylus, etc., contacting some intermediate point.

The present invention is very different. The present invention does NOT generate a plurality of surface acoustic waves at the edge of the display and see which of them are blocked. Instead, the present invention deals with a wave, referred to as a shockwave, which is GENERATED BY A FINGER, ETC. when it contacts the panel surface. The wave being detected originates at the interior point or position where the touch of the finger, etc. occurs.

When examining a claim for obviousness or anticipation, each and every limitation of the claim must be considered. When the claims, as amended, are considered, it becomes clear that the Toda reference fails to teach all of the limitations of each of the claims.

Claim 17 has been amended to include a limitation to the shockwave being generated at the point of tactile stimulation. Clearly, Toda does not teach or even suggest that any wave be generated at the point of tactile stimulation. The waves being generated in Toda are at the periphery of the display by the transducer elements.

Claim 1 includes the following limitation:

"said plurality of shockwave detectors configured to use a time of arrival of a shockwave to **determine a point of origin of the shockwave in the liquid crystal panel which results from a touch occurring at said point of origin**" (emphasis added).

As with claim 17, claim 1 is limited to determination of the point of origin of a shockwave which results from a touch. Toda does not teach this.

Claim 11 includes the following limitations:

"tapping a first location on said viewing area and thereby **generating a shockwave as a result of such tapping;**

providing a plurality of shockwave detectors which are not located at a single location;

***detecting an arrival of said shockwave at each of
said plurality of shockwave detectors;***

determining a time of arrival of said shockwave at
each of said plurality of shockwave detectors; and,"

As stated with respect to the above claims, Toda does not teach detecting a shockwave which is generated by the touching. Toda is almost the opposite. Toda teaches continuously generating a plurality of waves and detecting which of those waves is blocked. This is a teaching 180 degrees away from the present invention.


Moreover, claim 2 states that the panel is FREE from a plurality of transmitter and receiver pairs. Toda teaches exactly the opposite of this. Toda teaches that you MUST include a plurality of transmitter detector pairs.

The differences between the present invention and Toda become clear when one sees that the present invention does not teach any wave-generating transmitters (other than the tactile interaction)

The other cited references are not even asserted to teach the shortcomings of Toda as pointed out above. Consequently, the Toda reference fails to establish a prima facie case of obviousness and fails to anticipate any of the pending claims.

The Applicants believe that the application is in condition for allowance,
and early notification of the same would be much appreciated.

Respectfully submitted,



Kyle Eppele
Attorney for Applicants
Reg. No. 34,155

Rockwell Collins Corporation
Intellectual Property Department
400 Collins Road NE, M/S 124-323
Cedar Rapids, IA 52498
Telephone: (319) 295-8280
Facsimile No. (319) 295-8777
Customer No. 26383